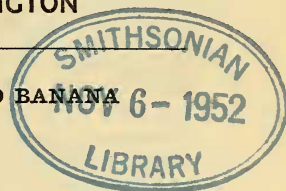


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEW FRANKLINIELLA INJURIOUS TO BANANA
(THYSANOPTERA, THIRPIDÆ)

BY J. DOUGLAS HOOD



The thrips described below is of some economic importance, and has been a subject of study by entomologists of the United Fruit Company for more than twenty years. It is apparently confined to the island of Hispaniola (Haiti), though other members of its genus are responsible for the same type of damage to the fruit of the banana in other areas. Should it merit a common name, Haiti Banana Thrips is suggested.

Frankliniella musaeperda sp. nov. (Fig. 1).

Female (macropterous).—Length about 1.3 mm. (distended, 1.6 mm.). Color pale yellow, head whitish, body without dark markings, internal pigmentation yellow, ocellar pigmentation deep red; legs somewhat paler than body; antennæ with segments I-III nearly colorless, II with orange pigmentation across tip, IV nearly colorless in about basal half, lightly shaded beyond, V paler than IV because shaded only at apex, VI-VIII yellowish gray; fore wings uniform pale yellowish; setæ yellowish gray, those on the two apical abdominal segments and the large dorsal pair on segments II and III of antennæ darkest.

Head about as long as its width across base and about 0.84 as long as width across eyes, the width at anterior fourth of cheeks somewhat less; cheeks convex, rounded to eyes and to base, without postocular angulation and with only a slight tooth at the faint occipital line; dorsum with pale, faint, widely-spaced cross-striæ in the area posterior to eyes, these producing a faint serration in posterior half, or less, of cheeks; interocellar setæ long ($64\ \mu$), arising just outside line connecting centers of median and posterior ocelli; postocular setæ much shorter ($40\ \mu$) and about $125\ \mu$ apart; minor setæ minute and nearly colorless, disposed as usual in the genus. *Eyes* ($80\ \mu$) half as long as width of head across them. *Ocelli* 16-17 μ in diameter, the posterior ones about $36\ \mu$ apart and about $20\ \mu$ from median ocellus. *Antennæ* about 2.1 times the length of head; segment II elevated on dorsum at apex and produced, its setæ long ($28\ \mu$) and conspicuous; III (Fig. 1) slender, nearly three times as long as wide ($61 \times 21\ \mu$), its apical setæ about $38\ \mu$, basal portion of its pedicel about $7\ \mu$ long and broadened sub-apically to form a sharp, shelf-like angulation which is about $11\ \mu$ across, the part distal to the shelf very short and with concave sides, apical portion of pedicel not differentiated; sense-cones as in allies.

Prothorax about equal in length to head, its width about 1.4 times its

length, surface without striæ; major setæ long, dark, the antero-marginals about 84 μ , antero-angulars 73, outer at posterior angles 87, inner 83, large submedian pair on posterior margin 58; minor prothoracic setæ pale, normal in form, number, and arrangement. *Fore wings* about 0.7 mm. long, costa with about 21 setæ, anterior vein with about 20, posterior vein with about 14.

Abdomen normal in form and structure, about 1.4 times as broad as prothorax; tergum VIII with comb on posterior margin complete and regular, composed of about 16 microtrichia, the longest about 15 μ ; segment IX with seta I about 105 μ , II 116, III 120; segment X with seta I 122, II 117.

Measurements of female (holotype), in mm.: Length 1.3 (distended, 1.6); head, total length 0.134, width across eyes 0.160, just behind eyes 0.153, across cheeks at about anterior fourth 0.157, at base 0.134, length in front of eyes 0.111, width in front of eyes 0.067; prothorax, median length 0.137, width 0.191; mesothorax, greatest width 0.255, metathorax 0.251, abdomen (at segment IV) 0.265. Antennal segments (μ): I 26 (30), II 44 (24), III 61 (21), IV 47 (20), V 36 (18), VI 47 (17), VII 8 (7), VIII 13 (5).

Male (macropterous).—Smaller than female (length about 1.0 mm.), but very similar in color and general structure; segment III of antennæ as in female.

DOMINICAN REPUBLIC: Puerto Libertador, July 24-August 31, 1951 (holotype, July 30), C. F. Dowling, Jr., F. S. Roberts, and P. Bournigal, 21 ♀♀, from flowers and buds of banana.

HAITI: L'Arcahail, May 26, 1933, James Zetek, 6 ♀♀ and 3 ♂♂ (including allotype), from young banana fruit [Hood No. 1069].

Very close to *F. cubensis* Hood, but somewhat larger, with the third antennal segment longer and more slender (compare Figs. 1 and 2), and the cephalic and pronotal setæ longer.

The following notes are from my number 1069, and were made in 1933: "Mr. Zetek brought from Haiti young banana fruits, and I examined them at Barro Colorado Island in June, 1933. They were covered with small dark pustules, perhaps 1/16 of an inch in diameter and half that high, made, I thought, by feeding punctures. Zetek says, however, that Mr. Johnson, of the United Fruit Company, states that they are oviposition punctures around which the tissues have proliferated, probably in response to the egg within. Johnson says, according to Zetek, that he has reared thrips from eggs which he was able to find in the pustules. The injury renders the fruit unmarketable. The same injury is caused on Barro Colorado Island, Canal Zone, Panama, by another species of *Frankliniella*."

Frankliniella cubensis Hood (Fig. 2).

1925. *Frankliniella cubensis* Hood, Bull. Brook. Ent. Soc., 20 (2): 74 Pl. III, Fig. 3.

1948. *Frankliniella cubensis*, Moulton, Rev. de Ent., 19 (1-2): 107, Fig. 39.

Moulton's figure, cited above, is extremely inaccurate. The form of

the third antennal segment is wholly wrong; and the setæ at its tip, as well as those on the second segment, are far too short (see my original figure of the holotype, cited above, and the figure given in the present paper). The species may have a synonym or two, but further material from various areas needs careful study before any worthwhile conclusions can be presented.

[Explanation of figures]

Fig. 1. *Frankliniella musaeparda* sp. nov., holotype, segment III, right antenna.

Fig. 2. *Frankliniella cubensis* Hood, holotype, segment III, right antenna.

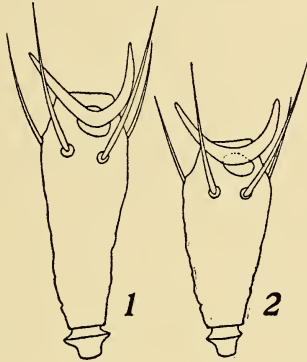


Plate IX